

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-9. (canceled).

10. (currently amended): A decoder for decompressing a compressed video signal, the compressed video signal containing entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients arranged based on the selected one of the plurality of different scanning patterns and the set of reordered coefficients having been transformed into ~~a symbol-state data samples~~ to generate the entropy encoded data, and also containing a scanning mode signal indicating the selected one of the plurality of different scanning patterns, wherein the selected one of the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion, the decoder comprising:

an entropy decoder operative to decode the entropy encoded data and to output entropy decoded data; and

a scanner operative to scan the entropy decoded data according to the selected one of the plurality of different scanning patterns as indicated by the scanning mode signal.

11. (currently amended): A decoder for decoding a coded data signal containing a compressed video signal and a scanning mode signal, the decoder comprising:

an entropy decoder to which is applied the compressed video signal, the compressed video signal including entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a specific pattern selected from a plurality of different scanning patterns, wherein the specific pattern selected from the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion, to produce a set of reordered coefficients arranged based on the specific pattern selected from the plurality of different scanning patterns and the set of reordered coefficients having been transformed into ~~a symbol-state data samples~~ to generate the entropy encoded data, said entropy decoder being operative to entropy decode the entropy encoded data and to output entropy decoded data; and

a scanner operative to scan the entropy decoded data responsive to the scanning mode signal, and to output scanned data, wherein the scanning mode signal indicates the specific pattern selected.

12. (previously presented) The decoder according to claim 11 wherein the coded data signal further includes additional information.

13. (previously presented) The decoder according to claim 11 wherein the entropy encoded data and the scanning mode signal are multiplexed together as part of the coded data signal.

14. (previously presented) The decoder according to claim 12, wherein the entropy encoded data, the scanning mode signal and the additional information are multiplexed together as part of the coded data signal, and wherein said decoder further includes a demultiplexer which demultiplexes the entropy encoded data, the scanning mode signal and the additional information.

15. (previously presented) The decoder according to claim 11, wherein the entropy encoded data is encoded according to a variable length encoding regime.

16. (previously presented) The decoder according to claim 11, wherein the scanner scans the entropy decoded data according to a runlength decoding regime.

17. (previously presented) The decoder of claim 11, further comprising a dequantizer which dequantizes the scanned data output by said scanner and outputs dequantized data.

18. (previously presented) The decoder of claim 17, further comprising an inverse discrete cosine transformer which inverse discrete cosine transforms the dequantized data output by said dequantizer.

19-33. (canceled).

34. (currently amended): A method of decoding a compressed video signal, comprising:
receiving a coded data signal, the coded data signal including a compressed video signal having entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients arranged based on the selected one of the plurality of different scanning patterns and the set of reordered coefficients having been transformed into ~~a symbol state~~ data samples to generate the entropy encoded data, the coded data signal also including a scanning mode signal indicating the selected one of the plurality of different scanning patterns wherein the selected one of the plurality of different scanning patterns produces a most efficient coding according to a predetermined criterion;

entropy decoding the entropy encoded data and outputting entropy decoded data; and
scanning the entropy decoded data according to the selected one of the plurality of different scanning patterns indicated by the scanning mode signal and outputting scanned data.

35. (previously presented) The method of claim 34, wherein the coded data signal further includes additional information.

36. (previously presented) The method of claim 34, wherein the entropy encoded data and the scanning mode signal are multiplexed together as part of the coded data signal.

37. (previously presented) The method of claim 35, wherein the entropy encoded data, the scanning mode signal and the additional information are multiplexed together as part of the coded data signal and wherein said decoding step further includes demultiplexing the entropy encoded data, the scanning mode signal and the additional information.

38. (previously presented) The method of claim 34, wherein the entropy encoded data is encoded according to a variable length encoding regime.

39. (previously presented) The method of claim 34, wherein the scanning step comprises scanning the entropy decoded data according to a runlength decoding regime.

40. (previously presented) The method of claim 34, further comprising a step of dequantizing the scanned data output by said scanning step and outputting dequantized data.

41. (previously presented) The method of claim 40, further comprising a step of inverse discrete cosine transforming the dequantized data output by said dequantizing step.

42-49. (canceled).

50. (new): A decoder for decompressing a compressed video signal, the compressed video signal containing entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns to produce a set of reordered coefficients, and also containing a scanning mode signal indicating the selected one of the plurality of different scanning patterns, the decoder comprising:

an entropy decoder operative to decode the entropy encoded data, said entropy encoded data being Huffman coded, and to output entropy decoded data; and

a scanner operative to scan the entropy decoded data according to the one selected pattern of the plurality of different scanning patterns as indicated by the scanning mode signal.

51. (new): A decoder, comprising:

decoding means to which is applied a coded data signal including a compressed video signal, the compressed video signal including entropy encoded data representing a set of video spatial frequency coefficients of an individual sub-block which have been scanned using a selected one of a plurality of different scanning patterns and, the coded data signal also including a scanning mode signal indicating the selected one of the plurality of different scanning patterns, said decoding means for entropy decoding the entropy encoded data and for outputting entropy decoded data; and

scanning means for scanning the entropy decoded data according to the selected pattern indicated by the scanning mode signal.

52. (new): The decoder according to claim 51, wherein the coded data signal further includes additional information.

53. (new): The decoder according to claim 51, wherein the entropy encoded data and the scanning mode signal are multiplexed together as part of the coded data signal, and wherein said decoder further includes a demultiplexing means for demultiplexing the entropy encoded data, the scanning mode signal and the additional information.

54. (new): The decoder according to claim 51, wherein the entropy encoded data is encoded according to a Huffman encoding regime.

55. (new) The decoder according to claim 51, wherein the scanning means scans the entropy decoded data according to a runlength decoding regime.

56. (new): The decoder according to claim 51, further comprising dequantizing means for dequantizing the scanned data output by said scanning means and for outputting dequantized data.

57. (new) The decoder according to claim 56, further comprising inverse discrete cosine transformer means for inverse discrete cosine transforming the dequantized data output by said dequantizing means.